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A SURVEY OF CUSTOM FARMWORK RATES CHARGED IN ONTARIO, 1989

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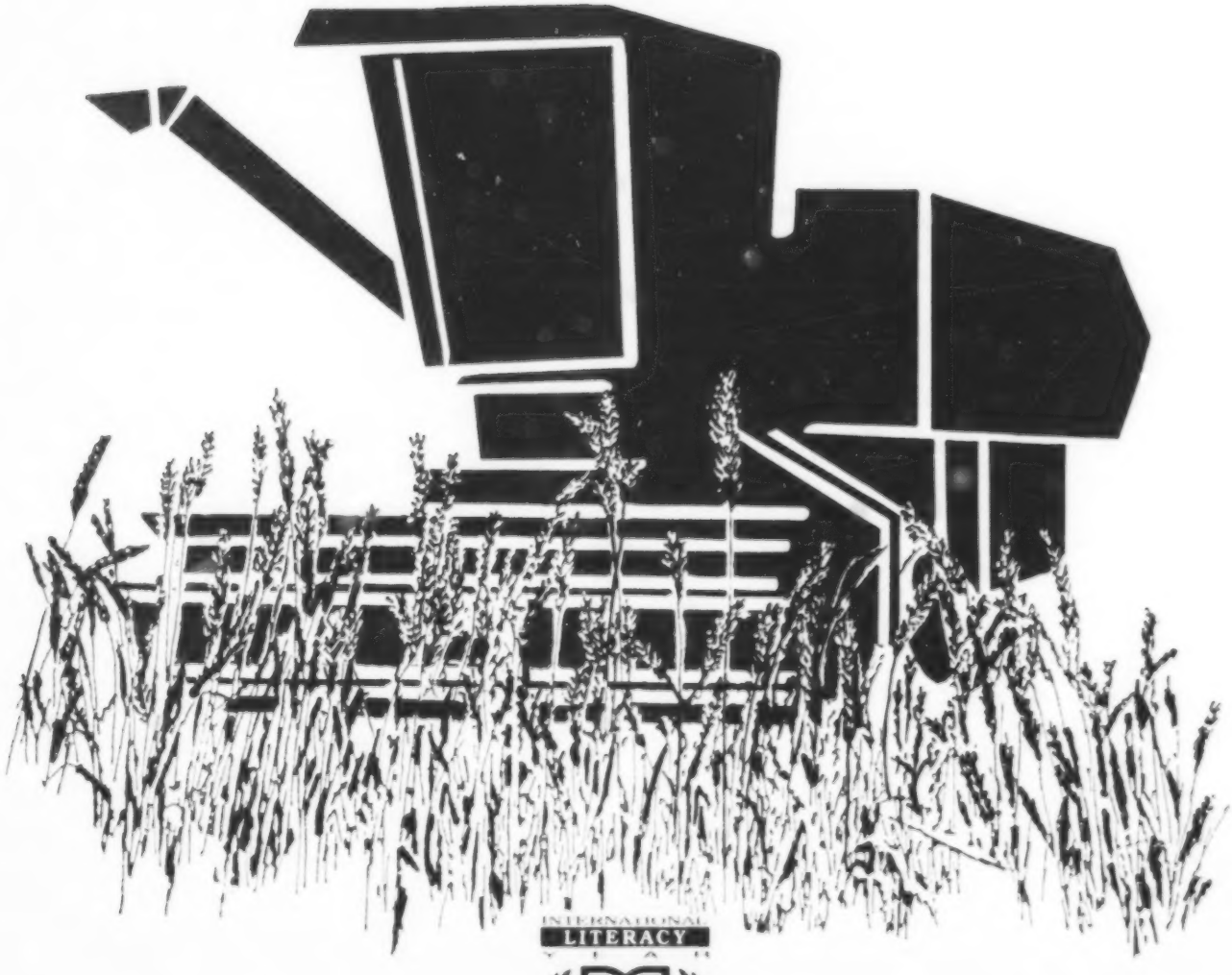

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REPORT NO. 89-14

A SURVEY OF CUSTOM FARMWORK RATES CHARGED IN ONTARIO, 1989

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FORWARD

A survey of custom farmwork rates, charged during 1989, was conducted by the Economics and Policy Coordination Branch of the Ontario Ministry of Agriculture and Food. Over 880 survey forms were forwarded to custom operators, of which over 650 were returned. Each custom operator volunteered information on the types of custom services provided, schedule of rates charged during 1989, and the equipment and labour provided. The results were analyzed with averages and ranges being calculated. These results provide an update to the 1988 survey "Custom Farmwork Rates Charged in Ontario". All information provided was treated confidentially.

The results of the 1989 survey are presented in Tables 1 through 11. For analysis purposes, the Province has been divided into six areas. For each of the survey areas, the ranges of rates, the most frequently quoted rates, and the average rates are given for the most common operations performed.

Although the information in this report may be used as a guide by custom operators and farmers using custom services, **IT SHOULD NOT BE INTERPRETED AS RECOMMENDATIONS.**

The custom work survey rates are reported by areas which are defined as follows:

Area 1 - Southern Ontario: Essex, Kent, Lambton, Middlesex, and Elgin counties.

Area 2 - South Western Ontario: Oxford and Brant counties; and regional municipalities of Haldimand-Norfolk, Niagara, and Hamilton-Wentworth.

Area 3 - Western Ontario: Huron, Perth, Bruce, Grey, Wellington, Dufferin, and Simcoe counties; and regional municipalities of Waterloo, Peel, and Halton.

Area 4 - Central Ontario: Victoria, Northumberland, Peterborough, Hastings, Muskoka-Parry Sound, and Prince Edward counties; and regional municipalities of York and Durham.

Area 5 - Eastern Ontario: Lennox and Addington, Frontenac, Leeds, Lanark, Renfrew, Grenville, Dundas, Stormont, Russell, Prescott, and Glengarry counties; and the regional municipality of Ottawa-Carleton.

Area 6 - Northern Ontario: Algoma, Cochrane North and South, Kenora, Manitoulin, Nipissing, Rainy River, Sudbury, Thunder Bay and Timiskaming districts.

OBSERVATIONS AND COMMENTS ON CUSTOM FARMWORK SERVICES

The services offered by custom work operators plays an important role in Ontario's farming industry. Because of increased mechanization, farmers are viewing specialized machinery as a way to reduce labour requirements and increase their farm efficiency. By utilizing custom farmwork services they can obtain the benefits of these specialized machines without having to make a capital investment.

The custom rates being charged in any area usually reflect the supply and demand for custom work services. The data in this report indicates that custom rates can vary, in some cases quite widely. Rates are reported only for those custom operations for which there were a sufficient number of responses. Rates are quoted on a per acre or per hour basis.

Custom operators who know the operating costs for their machines as well as the conditions they will encounter, can compare their own rates with the survey rate averages reported for their area. Other farmers who are considering the purchase of new equipment for custom work can also review the rates being charged in their area before making their purchase decision.

These results are a guide only, and should be used as one of several factors in establishing custom rates.

CUSTOM TILLAGE AND PLANTING

Factors affecting rates - soil type and conditions
field size and shape
obstructions
type of crop residue
additional equipment used (packers, harrows)
time of season
applying fertilizer or pre-emergents

Most common practices - farmer delivered materials to the field
input costs were provided by the farmer

By using an hourly rate, custom operators can more easily calculate charges when field sizes are irregular or exact acreage unknown.

CUSTOM WEED CONTROL AND FERTILIZER APPLICATION

Factors affecting rates - type of spraying equipment used
availability of water
who supplied the water tanks
fertilizer applicator costs
who supplied or delivered anhydrous tanks

Most common practices - chemicals and fertilizer provided by the farmer

CUSTOM HARVESTING SOYBEANS, SMALL GRAINS, AND CORN

Factors affecting rates - field conditions
crop lodging
weed growth or density
additional equipment (wagons, augers)
combine size

Most common practices - farmer hauled and unloaded grain

Trucking rates varied depending on the distance to the elevator, loading facilities, as well as the time of year.

Rates for drying operations varied among custom operators supplying this service, because of the different drying systems and methods of charging. Therefore, custom drying charges were not reported.

Many of the custom drying operators who responded indicated that their rates are based on the drying charges established by the Ontario Grain and Feed Dealers Association.[a] These elevator drying charges do not include costs for handling grains, therefore an added cost per unit should be considered to cover these handling charges.[b]

CUSTOM SILO FILLING

Rates for silo filling of corn were most commonly reported on an hourly basis. Two groups of silo filling equipment was common to all areas of Ontario and are defined in that section of the report.

Factors affecting rates - distances from field to silo
number and size of tractors
size and type of harvester
number of people supplied
blower type
number and type of forage wagons
crop density
tractor horsepower used on blower

Most common practices - farmer supplied additional labour and tractors

CUSTOM HAY HARVESTING

Factors affecting rates - size of bale
dropped in field or loaded
additional equipment used (stooker, thrower)

Most common practices - cutting and conditioning was one operation
cost of twine was included
farmer supplied additional labour, and wagons for loading

---

[a] See Appendix Tables 1 and 2 for drying rates.
[b] See Appendix Tables 3 and 4 for handling and storage tariffs.

Table 1.--Rates for Custom Tillage, Planting, Weed Control, and Fertilizer Applications, Area 1, Southern Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
			- dollars per acre -	
Tillage[a]				
Plowing:				
Chisel	7	14.00	--	10.00- 18.00
Moldboard	54	16.05	15.00	10.00- 24.00
Discing	26	7.97	8.00	5.00- 12.00
Cultivating	32	7.41	6.00	5.00- 10.00
Soil saver	12	13.45	12.00	11.00- 18.00
Planting				
Corn	39	9.99	10.00	7.00- 12.50
Soybeans	34	9.51	10.00	7.00- 15.00
Small Grains	19	9.07	--	7.00- 12.00
Weed Control[b]				
Spraying	31	6.10	6.00	5.00- 8.00
Incorporating[c]	17	9.91	--	8.00- 14.00
Row cultivating	15	6.38	6.00	5.00- 8.00
Rotary hoeing	8	5.19	5.00	4.00- 7.00
Fertilizing				
Anhydrous	9	9.00	8.00	8.00- 12.00
Dry Fertilizer	4	4.13	--	3.00- 5.00

[a] Per hour rates for tillage operations of plowing, discing and cultivating differ according to the size of tractor and equipment used to perform the operation.

[b] Spraying and incorporating does not include cost of any materials.

[c] Incorporating includes the application of spray materials and working these materials into the ground.

Table 2.--Rates for Custom Harvesting Operations, Area 1, Southern Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
			- dollars -	
Harvesting Corn				
Picking: per acre				
Seed corn[a]	6	40.00	40.00	38.00- 42.00
Combining: per acre	84	30.52	30.00	25.00- 35.00
Trucking: per bushel	28	.14	.15	.10- .20
per tonne	14	5.26	5.00	4.00- 7.75
Harvesting Small Grains and Soybeans, per acre				
Swathing:				
Small grains	5	8.35	8.00	7.75- 10.00
Combining:				
Wheat	41	26.94	28.00	20.00- 32.00
Other small grains	41	26.42	30.00	20.00- 30.00
Soybeans	81	28.90	30.00	25.00- 32.00
Forage Operations				
Swathing:				
Hay, per acre	18	11.33	12.00	8.50- 15.00
Baling: per bale				
Small rectangular	20	.37	.35	.30- .50
Large round	7	7.16	--	5.00- 9.20
Silo filling[b]: per hour				
Group 1	7	125.71	150.00	90.00-150.00
Group 2	7	182.14	300.00	95.00-300.00
Snow Removal				
Blade, per hour	5	61.60	--	50.00- 85.00

[a] Most operators supply a dump wagon with the picker.

[b] The following combinations were used:

Group 1: 1 or 2 tractors, 2-row PTO harvester, blower, wagons, and 2 persons.
Group 2: 1 to 3 tractors, SP 2- to 4-row harvester, blower, wagons, and 1 to 3 persons.

NOTE: Adjustments can be made in silo filling operations by allowing a rate per hour for each additional person and tractor supplied.

Table 3.--Rates for Custom Tillage, Planting, Weed Control, and Fertilizer Applications, Area 2, South Western Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
		- dollars per acre -		
Tillage[a]				
Plowing:				
Chisel	3	13.00	--	12.00- 14.00
Moldboard	55	15.22	15.00	10.00- 20.00
Discing	31	8.68	10.00	6.00- 10.00
Cultivating	19	8.13	8.00	6.00- 10.00
Soil saver	22	13.55	12.00	10.00- 20.00
Planting				
Corn	42	10.70	10.00	8.00- 16.00
Soybeans	20	10.73	10.00	7.50- 15.00
Small grains	23	9.78	10.00	7.50- 15.00
Weed Control[b]				
Spraying	28	6.16	6.00	4.50- 8.00
Incorporating[c]	10	11.90	--	7.00- 15.00
Fertilizing				
Anhydrous	7	7.79	8.00	7.00- 8.50

[a] Per hour rates for the tillage operations of plowing, discing and cultivating differ according to the size of tractor and equipment used to perform the operation.

[b] Spraying and incorporating does not include any materials.

[c] Incorporating included the application of spray materials and working these materials into the ground.

Table 4.--Rates for Custom Harvesting Operations, Area 2, South Western Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
			- dollars -	
Harvesting Corn				
Picking: per acre . . .	4	34.25	35.00	29.00- 38.00
Combining: per acre . . .	66	31.56	30.00	25.00- 40.00
per hour . . .	6	115.83	100.00	100.00-140.00
Trucking: per bushel . .	6	.16	.16	.14- .18
per tonne . .	28	5.96	6.00	5.00- 8.00
Harvesting Small Grains and Soybeans				
Combining:				
Wheat, per acre . . .	26	24.44	25.00	20.00- 32.00
Other small grains, per acre . . .	57	24.75	25.00	20.00- 30.00
per hour . . .	6	117.50	--	100.00-135.00
Soybeans, per acre . . .	46	31.93	32.00	27.00- 40.00
Forage Operations				
Swathing:				
Hay, per acre . . .	10	11.70	12.00	10.00- 16.00
Baling: per bale				
Small rectangular	21	.42	.35	.30- .70
Large round	9	6.67	5.00	5.00- 10.00
Silo filling[a]: per hour				
Group 1	12	118.33	--	80.00-150.00
Group 2	6	139.17	--	80.00-150.00
Snow Removal				
Blade, per hour . . .	5	41.00	45.00	30.00- 60.00
Blower, per hour . . .	4	56.25	60.00	50.00- 60.00

[a] The following combinations were used:

Group 1: 1 or 2 tractors, 2-row PTO harvester, blower, wagons, and 2 persons.

Group 2: 1 to 3 tractors, SP 2- or 3-row harvester, blower, wagons, and 1 to 3 persons.

NOTE: Adjustments can be made in silo filling operations by allowing a rate per hour for each additional person and tractor supplied.

Table 5.--Rates for Custom Tillage, Planting, Weed Control, Fertilizer Applications, Area 3, Western Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
			- dollars per acre -	
Tillage[a]				
Plowing:				
Chisel	6	12.67	--	10.00- 14.50
Moldboard	73	14.78	15.00	12.00- 25.00
Discing	22	8.07	8.00	6.00- 10.00
Cultivating	47	6.93	7.00	4.50- 8.50
Soil saver	12	12.60	--	7.00- 16.00
Planting				
Corn	50	10.11	10.00	6.00- 13.00
Soybeans	38	10.07	10.00	8.00- 14.00
Small grains	52	9.38	10.00	6.00- 13.00
Weed Control[b]				
Spraying	59	5.56	6.00	3.00- 8.00
Incorporating[c]	7	11.79	9.00	9.00- 12.00
Row cultivating	7	6.04	6.00	5.50- 6.75
Fertilizing				
Anhydrous	5	10.50	--	8.00- 15.00
Dry fertilizer	8	5.56	5.00	4.50- 8.00

[a] Per hour rates for tillage operations of plowing, discing and cultivating differ according to the size of tractor and equipment used to perform the operations.

[b] Spraying and incorporating does not include any materials.

[c] Incorporating included the application of spray materials and working these materials into the ground.

Table 6.--Rates for Custom Harvesting Operations, Area 3, Western Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
			- dollars -	
Harvesting Corn				
Combining:				
per acre . . .	103	31.38	30.00	25.00- 40.00
per hour . . .	7	116.14	125.00	98.00-125.00
Trucking: per tonne	27	5.83	5.00	5.00- 8.00
Harvesting Small Grains and Soybeans				
Combining:				
Small grains,				
per acre . . .	86	24.92	25.00	18.00- 30.00
per hour . . .	10	107.60	100.00	95.00-125.00
Swathed grains,				
per acre . . .	21	23.95	--	19.00- 27.00
Wheat, per acre . . .	30	25.62	25.00	20.00- 32.00
Soybeans,				
per acre . . .	70	29.94	30.00	24.00- 35.00
per hour . . .	4	118.75	120.00	100.00-135.00
Swathing:				
Small grains,				
per acre . . .	35	9.59	10.00	6.00- 13.00
per hour . . .	3	45.00	--	40.00- 50.00
Harvesting White Beans, per acre				
Pulling & windrowing . . .	9	15.17	--	10.00- 20.00
Combining, straight	24	31.15	--	23.00- 40.00
Forage Operations				
Swathing:				
Hay, per acre . . .	31	11.27	10.00	9.00- 15.00
per hour . . .	7	47.14	40.00	30.00- 75.00
Baling: per bale				
Small rectangular	20	.39	.40	.25- .60
Large round	46	5.72	5.00	3.00- 8.00
Silo filling[a]: per hour				
Group 1	18	97.61	120.00	60.00-150.00
Group 2	[b]	--	--	--
Snow Removal				
Blower, per hour . . .	22	53.55	40.00	30.00- 95.00

[a] The following combinations were used:

Group 1: 1 or 2 tractors, 2-row PTO harvester, wagons, blower, and 2 persons.
Group 2: 1 to 3 tractors, SP 2- or 3-row harvester, blower, wagons, and 1 to 3 persons.

NOTE: Adjustments can be made in silo filling operations by allowing a rate per hour for each additional person and tractor supplied.

[b] Insufficient responses to report.

Table 7.--Rates for Custom Tillage, Planting, Weed Control, Fertilizer Applications, Area 4, Central Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
			- dollars -	
Tillage[a]				
Plowing:				
Chisel, per acre	4	9.50	12.00	6.00- 12.00
Moldboard, per acre	38	16.48	15.00	13.00- 25.00
per hour	12	55.92	--	35.00-125.00
Discing:				
per acre	17	9.44	8.00	7.00- 14.00
Cultivating:				
per acre	23	7.99	7.00	7.00- 12.00
per hour	7	59.43	--	30.00-125.00
			- dollars per acre -	
Planting				
Corn	33	10.48	10.00	8.00- 14.00
Soybeans	12	10.13	10.00	8.00- 14.00
Small grains	28	9.41	10.00	5.00- 15.00
Weed Control[b]				
Spraying	32	6.19	5.00	5.00- 9.00
Fertilizing				
Dry Fertilizer	3	4.67	5.00	4.00- 5.00

[a] Per hour rates for the tillage operations of plowing, discing, and cultivating differ according to the size of tractor and equipment used to perform the operations.

[b] Spraying does not include any materials.

Table 8.--Rates for Custom Harvesting Operations, Area 4, Central Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
			- dollars -	
Harvesting Corn				
Combining: per acre . . .	34	31.55	30.00	25.00- 37.00
per hour . . .	8	105.00	--	80.00-130.00
Trucking: per tonne . .	17	7.03	7.00	5.00- 10.00
Harvesting Small Grains and Soybeans				
Combining:				
Wheat, per acre . . .	29	27.51	25.00	25.00- 33.75
Grains, per acre . . .	37	27.18	25.00	22.00- 35.00
per hour . . .	10	97.30	--	50.00-130.00
Soybeans, per acre . . .	22	30.86	30.00	28.00- 35.00
per hour . . .	3	116.67	--	100.00-130.00
Swathing:				
Small grains, per acre . . .	4	10.50	12.00	8.00- 12.00
Forage Operations				
Swathing:				
Hay, per acre . . .	25	12.50	12.00	10.00- 16.00
per hour . . .	6	34.83	35.00	25.00- 40.00
Baling: per bale				
Small rectangular	13	.42	.35	.28- .85
Large round	38	6.00	6.00	4.00- 12.00
Silo filling[a]: per hour				
Group 1	21	83.95	--	48.00-125.00
Group 2	5	175.00	--	95.00-250.00
Snow Removal				
Blower, per hour . . .	7	53.71	--	35.00- 65.00
Blade, per hour . . .	3	31.33	--	24.00- 35.00

[a] The following combinations were used:

Group 1: 1 or 2 tractors, 2-row PTO harvester, wagons, blower, and 1 or 2 persons.

Group 2: 1 to 3 tractors, SP 2- or 3-row harvester, wagons, blower, and 1 to 3 persons.

NOTE: Adjustments can be made in silo filling operations by allowing a rate per hour for each additional person and tractor supplied.

Table 9.--Rates for Custom Tillage, Planting, Weed Control, Fertilizer Applications, Area 5, Eastern Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
			- dollars -	
Tillage[a]				
Plowing:				
Moldboard,				
per acre	26	17.69	15.00	12.00- 35.00
per hour	23	55.57	--	28.00-110.00
Discing:				
per acre	8	10.24	--	7.50- 16.00
per hour	13	58.08	--	40.00-100.00
Cultivating:				
per acre	9	8.87	8.00	6.00- 12.00
per hour	7	57.14	50.00	30.00- 80.00
Planting				
Corn, per acre	28	9.98	10.00	5.00- 13.50
per hour	8	54.50	--	26.00- 80.00
Small grains,				
per acre	8	8.75	7.00	7.00- 11.00
Soybeans,				
per acre	4	9.13	8.00	8.00- 12.00
Weed Control[b]				
Spraying:				
per acre	23	6.28	5.00	5.00- 9.00

[a] Per hour rates for the tillage operations of plowing, discing, and cultivating differ according to the size of tractor and equipment used to perform the operations.

[b] Spraying does not include any materials.

Table 10.--Rates for Custom Harvesting Operations, Area 5, Eastern Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
			- dollars -	
Harvesting Corn				
Combining:				
per acre . . .	26	30.74	30.00	25.00- 50.00
per hour . . .	36	106.11	100.00	65.00-150.00
Trucking: per tonne . .	6	5.83	--	4.00- 7.00
Harvesting Small Grains and Soybeans				
Combining:				
Wheat, per acre . . .	17	29.15	--	20.00- 50.00
Small grains,				
per acre . . .	22	29.02	30.00	20.00- 50.00
per hour . . .	31	92.58	--	55.00-125.00
Soybeans, per acre . . .	11	32.59	35.00	25.00- 50.00
per hour . . .	17	101.18	100.00	65.00-125.00
Swathing:				
Small grains,				
per acre . . .	7	9.43	--	8.00- 12.00
Forage Operations				
Swathing:				
Hay, per acre . . .	9	10.11	10.00	9.00- 12.00
per hour . . .	11	45.00	40.00	30.00- 70.00
Baling: per bale				
Small rectangular	12	.45	.45	.30- .55
Large round	32	5.77	5.00	4.00- 9.00
Silo filling[a]: per hour				
Group 1	20	94.25	--	50.00-140.00
Group 2	7	128.57	125.00	100.00-190.00
Snow Removal				
Blower, per hour . . .	12	44.83	40.00	25.00- 75.00

[a] The following combinations were used:

Group 1: 1 or 2 tractors, 2-row PTO harvester, wagons, blower, and 1 or 2 persons.

Group 2: 1 to 3 tractors, SP 2- or 3-row harvester, blower, wagons, and 1 to 3 persons.

NOTE: Adjustments can be made in silo filling operations by allowing a rate per hour for each additional person and tractor supplied.

Table 11.--Rates for Custom Farmwork Operations, Area 6, Northern Ontario, 1989

Operation	Number Reporting	Average	Most Frequent	Range
			- dollars -	
Tillage[a]				
Plowing, per hour . . .	3	46.67	40.00	40.00- 60.00
Discing, per hour . . .	4	47.00	45.00	40.00- 58.00
Weed Control[b]				
Spraying, per acre . . .	4	5.63	5.00	5.00- 6.50
Harvesting Small Grains				
Swathing:				
Small grains, per hour . . .	4	36.25	35.00	30.00- 45.00
Combining:				
Small grains, per hour . . .	13	76.69	--	45.00-100.00
Soybeans, per hour . . .	4	87.50	--	60.00-125.00
Forage Operations				
Swathing:				
Hay, per hour . . .	11	34.73	35.00	25.00- 45.00
Baling:				
Large round, per bale . . .	24	5.23	5.00	3.00- 7.50

[a] Per hour rates for the tillage operations of plowing and discing and for harvesting operations differ according to the size of tractor and equipment, and size of combine used.

[b] Spraying does not include any materials.

Appendix Table 1.--Corn Conversion Table - Wet Kilograms to Dry Tonnes Using Natural Gas, 1989

Moisture	Wet Corn (Divisor)	Drying Charge[a]	Moisture	Wet Corn (Divisor)	Drying Charge[a]	Moisture	Wet Corn (Divisor)	Drying Charge[a]
%	kg	$	%	kg	$	%	kg	$
15.5	1000.0	---						
15.6	1011.3	3.88	19.6	1061.6	8.31	23.6	1117.2	10.47
15.7	1012.5	4.06	19.7	1062.9	8.36	23.7	1118.7	10.52
15.8	1013.7	4.26	19.8	1064.3	8.41	23.8	1120.1	10.57
15.9	1014.9	4.44	19.9	1065.6	8.47	23.9	1121.6	10.59
16.0	1016.1	4.64	20.0	1066.9	8.69	24.0	1123.1	10.62
16.1	1017.3	4.82	20.1	1068.3	8.76	24.1	1124.6	10.65
16.2	1018.5	5.01	20.2	1069.6	8.81	24.2	1126.0	10.67
16.3	1019.8	5.20	20.3	1070.9	8.87	24.3	1127.5	10.74
16.4	1021.0	5.37	20.4	1072.3	8.93	24.4	1129.0	10.81
16.5	1022.2	5.56	20.5	1073.6	8.98	24.5	1130.5	10.88
16.6	1023.4	5.73	20.6	1075.0	9.03	24.6	1132.0	10.94
16.7	1024.7	5.91	20.7	1076.3	9.08	24.7	1133.5	10.99
16.8	1025.9	6.09	20.8	1077.7	9.13	24.8	1135.0	11.04
16.9	1027.1	6.28	20.9	1079.1	9.18	24.9	1136.5	11.09
17.0	1028.4	6.46	21.0	1080.4	9.22	25.0	1138.0	11.14
17.1	1029.6	6.65	21.1	1081.8	9.27	25.1	1139.6	11.18
17.2	1030.8	6.84	21.2	1083.2	9.32	25.2	1141.1	11.24
17.3	1032.1	7.03	21.3	1084.5	9.36	25.3	1142.6	11.30
17.4	1033.3	7.12	21.4	1085.9	9.41	25.4	1144.1	11.36
17.5	1034.6	7.21	21.5	1087.3	9.46	25.5	1145.7	11.41
17.6	1035.8	7.29	21.6	1088.7	9.51	25.6	1147.2	11.45
17.7	1037.1	7.38	21.7	1090.1	9.54	25.7	1148.8	11.48
17.8	1038.4	7.48	21.8	1091.5	9.59	25.8	1150.3	11.52
17.9	1039.6	7.52	21.9	1092.9	9.64	25.9	1151.9	11.56
18.0	1040.9	7.56	22.0	1094.3	9.69	26.0	1153.4	11.60
18.1	1042.2	7.60	22.1	1095.7	9.74	26.1	1155.0	11.64
18.2	1043.4	7.63	22.2	1097.1	9.78	26.2	1156.6	11.68
18.3	1044.7	7.67	22.3	1098.5	9.84	26.3	1158.1	11.72
18.4	1046.0	7.72	22.4	1099.9	9.88	26.4	1159.7	11.76
18.5	1047.3	7.77	22.5	1101.3	9.92	26.5	1161.3	11.81
18.6	1048.6	7.82	22.6	1102.8	9.96	26.6	1162.9	11.87
18.7	1049.9	7.87	22.7	1104.2	10.00	26.7	1164.4	11.93
18.8	1051.2	7.92	22.8	1105.6	10.05	26.8	1166.0	11.99
18.9	1052.4	7.97	22.9	1107.0	10.10	26.9	1167.6	12.05
19.0	1053.7	8.02	23.0	1108.5	10.15	27.0	1169.2	12.11
19.1	1055.0	8.07	23.1	1109.9	10.20	27.1	1170.8	12.16
19.2	1056.4	8.12	23.2	1111.4	10.25	27.2	1172.4	12.22
19.3	1057.7	8.17	23.3	1112.8	10.30	27.3	1174.1	12.29
19.4	1059.0	8.22	23.4	1114.3	10.35	27.4	1175.7	12.35
19.5	1060.3	8.26	23.5	1115.7	10.41	27.5	1177.3	12.41

This chart shows the number of kilograms of wet corn, at varying degrees of moisture, that are required to yield a dry tonne, including allowance of 1 percent invisible loss. Charges for drying are assessed per tonne of dry corn.

(continued on next page)

Appendix Table 1.--Corn Conversion Table - Wet Kilograms to Dry Tonnes Using Natural Gas, 1989 (concluded)

Moisture	Wet Corn (Divisor)	Drying Charge[a]	Moisture	Wet Corn (Divisor)	Drying Charge[a]	Moisture	Wet Corn (Divisor)	Drying Charge[a]
%	kg	$	%	kg	$	%	kg	$
27.6	1178.9	12.45	32.1	1257.0	14.47	36.6	1346.3	17.13
27.7	1180.5	12.50	32.2	1258.9	14.50	36.7	1348.4	17.30
27.8	1182.2	12.55	32.3	1260.8	14.53	36.8	1350.5	17.48
27.9	1183.8	12.60	32.4	1262.6	14.56	36.9	1352.7	17.65
28.0	1185.5	12.64	32.5	1264.5	14.58	37.0	1354.8	17.82
28.1	1187.1	12.67	32.6	1266.4	14.62	37.1	1357.0	17.98
28.2	1188.8	12.69	32.7	1268.3	14.66	37.2	1359.1	18.16
28.3	1190.4	12.71	32.8	1270.1	14.71	37.3	1361.3	18.32
28.4	1192.1	12.73	32.9	1272.0	14.74	37.4	1363.5	18.49
28.5	1193.8	12.79	33.0	1273.9	14.78	37.5	1365.7	18.67
28.6	1195.4	12.84	33.1	1275.8	14.82	37.6	1367.8	18.85
28.7	1197.1	12.89	33.2	1277.7	14.86	37.7	1370.0	19.02
28.8	1198.8	12.96	33.3	1279.7	14.90	37.8	1372.2	19.21
28.9	1200.5	13.03	33.4	1281.6	14.95	37.9	1374.5	19.38
29.0	1202.2	13.10	33.5	1283.5	15.01	38.0	1376.7	19.56
29.1	1203.9	13.15	33.6	1285.4	15.06	38.1	1378.9	19.73
29.2	1205.6	13.22	33.7	1287.4	15.10	38.2	1381.1	19.89
29.3	1207.3	13.30	33.8	1289.3	15.15	38.3	1383.4	20.06
29.4	1209.0	13.37	33.9	1291.3	15.21	38.4	1385.6	20.21
29.5	1210.7	13.43	34.0	1293.2	15.26	38.5	1387.9	20.37
29.6	1212.4	13.48	34.1	1295.2	15.31	38.6	1390.1	20.55
29.7	1214.1	13.52	34.2	1297.2	15.36	38.7	1392.4	20.73
29.8	1215.9	13.59	34.3	1299.1	15.39	38.8	1394.7	20.90
29.9	1217.6	13.65	34.4	1301.1	15.43	38.9	1396.9	21.09
30.0	1219.3	13.70	34.5	1303.1	15.47	39.0	1399.2	21.25
30.1	1221.1	13.75	34.6	1305.1	15.51	39.1	1401.5	21.42
30.2	1222.8	13.79	34.7	1307.1	15.55	39.2	1403.8	21.59
30.3	1224.6	13.83	34.8	1309.1	15.58	39.3	1406.2	21.77
30.4	1226.3	13.87	34.9	1311.1	15.63	39.4	1408.5	21.99
30.5	1228.1	13.91	35.0	1313.1	15.68	39.5	1410.8	22.20
30.6	1229.9	13.94	35.1	1315.2	15.74	39.6	1413.1	22.30
30.7	1231.7	13.97	35.2	1317.2	15.80	39.7	1415.5	22.42
30.8	1233.4	14.00	35.3	1319.2	15.85	39.8	1417.8	22.61
30.9	1235.2	14.03	35.4	1321.3	15.90	39.9	1420.2	22.83
31.0	1237.0	14.07	35.5	1323.3	15.96	40.0	1422.6	23.06
31.1	1238.8	14.10	35.6	1325.4	16.01	40.1	1424.9	23.27
31.2	1240.6	14.14	35.7	1327.4	16.07	40.2	1427.3	23.49
31.3	1242.4	14.18	35.8	1329.5	16.12	40.3	1429.7	23.71
31.4	1244.2	14.22	35.9	1331.6	16.18	40.4	1432.1	23.93
31.5	1246.0	14.25	36.0	1333.6	16.28	40.5	1434.5	24.14
31.6	1247.9	14.28	36.1	1335.7	16.37	40.6	1436.9	24.37
31.7	1249.7	14.31	36.2	1337.8	16.48	40.7	1439.3	24.57
31.8	1251.5	14.35	36.3	1339.9	16.59	40.8	1441.8	24.79
31.9	1253.4	14.39	36.4	1342.0	16.77	40.9	1444.2	25.02
32.0	1255.2	14.42	36.5	1344.1	16.95	41.0	1446.7	25.23

[a] Suggested charges based on average labour, overhead and fuel costs for commercial natural gas dryers, effective September 1, 1989

Source: Ontario Grain and Feed Dealers Association.

Appendix Table 2.--Soybean Conversion Table - Wet Kilograms to Dry Tonnes Using Natural Gas, 1989

Moisture	Wet Corn (Divisor)	Drying Charge[a]	Moisture	Wet Corn (Divisor)	Drying Charge[a]	Moisture	Wet Corn (Divisor)	Drying Charge[a]
%	kg	$	%	kg	$	%	kg	$
13.0	988.5							
13.1	989.6		17.1	1042.6	8.46	21.1	1095.4	15.73
13.2	990.8		17.2	1043.8	8.64	21.2	1096.8	15.91
13.3	991.9		17.3	1045.1	8.83	21.3	1098.2	16.07
13.4	993.1		17.4	1046.4	8.99	21.4	1099.6	16.23
13.5	994.2		17.5	1047.6	9.15	21.5	1101.0	16.37
13.6	995.4		17.6	1048.9	9.31	21.6	1102.4	16.52
13.7	996.5		17.7	1050.2	9.47	21.7	1103.8	16.67
13.8	997.7		17.8	1051.5	9.62	21.8	1105.2	16.82
13.9	998.8		17.9	1052.7	9.83	21.9	1106.7	17.01
14.0	1000.0		18.0	1054.0	10.02	22.0	1108.1	17.22
14.1	1006.2	2.81	18.1	1055.3	10.22	22.1	1109.5	17.41
14.2	1007.3	3.01	18.2	1056.6	10.42	22.2	1110.9	17.62
14.3	1008.5	3.20	18.3	1057.9	10.62	22.3	1112.4	17.81
14.4	1009.7	3.40	18.4	1059.2	10.79	22.4	1113.8	17.99
14.5	1010.9	3.59	18.5	1060.5	10.95	22.5	1115.2	18.17
14.6	1012.1	3.78	18.6	1061.8	11.13	22.6	1116.7	18.35
14.7	1013.2	3.98	18.7	1063.1	11.29	22.7	1118.1	18.53
14.8	1014.4	4.17	18.8	1064.4	11.47	22.8	1119.6	18.70
14.9	1015.6	4.37	18.9	1065.7	11.66	22.9	1121.0	18.92
15.0	1016.8	4.56	19.0	1067.0	11.85	23.0	1122.5	19.14
15.1	1018.0	4.75	19.1	1068.4	12.06	23.1	1123.9	19.36
15.2	1019.2	4.95	19.2	1069.7	12.25	23.2	1125.4	19.57
15.3	1020.4	5.14	19.3	1071.0	12.45	23.3	1126.9	19.80
15.4	1021.6	5.32	19.4	1072.3	12.63	23.4	1128.3	19.95
15.5	1022.8	5.62	19.5	1073.7	12.81	23.5	1129.8	20.12
15.6	1024.1	5.79	19.6	1075.0	12.99	23.6	1131.3	20.27
15.7	1025.3	5.98	19.7	1076.3	13.17	23.7	1132.8	20.43
15.8	1026.5	6.15	19.8	1077.7	13.35	23.8	1134.3	20.59
15.9	1027.7	6.31	19.9	1079.0	13.52	23.9	1135.7	20.77
16.0	1028.9	6.47	20.0	1080.4	13.71	24.0	1137.2	20.95
16.1	1030.2	6.63	20.1	1081.7	13.88	24.1	1138.7	21.13
16.2	1031.4	6.79	20.2	1083.1	14.07	24.2	1140.2	21.30
16.3	1032.6	6.95	20.3	1084.4	14.24	24.3	1141.7	21.49
16.4	1033.9	7.14	20.4	1085.8	14.43	24.4	1143.3	21.68
16.5	1035.1	7.32	20.5	1087.2	14.64	24.5	1144.8	21.88
16.6	1036.3	7.51	20.6	1088.5	14.83	24.6	1146.3	22.08
16.7	1037.6	7.70	20.7	1089.9	15.04	24.7	1147.8	22.28
16.8	1038.8	7.89	20.8	1091.3	15.23	24.8	1149.3	22.47
16.9	1040.1	8.08	20.9	1092.7	15.40	24.9	1150.9	22.66
17.0	1041.3	8.26	21.0	1094.1	15.57	25.0	1152.4	22.83

This chart shows the number of kilograms of soybeans, at varying degrees of moisture, that are required to yield a dry tonne at 14 percent moisture. At moisture levels over 14% an allowance of 1/2 of 1% is included as invisible loss. Charges for drying are assessed per tonne of dry soybeans.

[a] Drying charges are negotiated between the Ontario Grain and Feed Dealers Association and the Soybean Growers' Marketing Board. Rates were effective September 1, 1989.

Source: Ontario Grain and Feed Dealers Association.

Appendix Table 3.--Handling Allowance, Soybeans, 1989 Crop Year

Selling Price	Handling Charge
$/tonne	$/tonne
000.00 - 150.00	7.70
150.01 - 200.00	8.80
200.01 - 250.00	9.90
250.01 - 300.00	11.00
300.01 - 350.00	12.50
350.01 - 400.00	12.90
400.01 - 450.00	13.30
450.01 - 500.00	13.70

Note: For each $50.00 per tonne selling price above $350.00 there is an additional 40 cents per tonne handling charge.

Rates effective September 1, 1989

Source: Ontario Grain and Feed Dealers Association.

Appendix Table 4.--Grain Handling and Storage Tariff, 1989 Crop Year

Commodity	Charge
Storage Schedule	cents/day/tonne
Corn	4.5
Soybeans	4.1
Wheat	4.1
Rye	4.3
Barley	5.1
Oats	6.7
Canola	4.9
Elevation Charge	$/tonne
In-Elevation Charge	1.25
Custom Handling Charge	10.00
Grade Discounts	
Corn	
Grades #1 & #2	Nil
Grade #3	.80
Grade #4	3.90
Grade #5	7.90
Soybeans	
Grades #1 & #2	Nil
Grade #3	2.00
Grade #4	5.00
Grade #5	10.00

In the case of wheat and soybeans, certain charges are established by regulation under the Farm Products Marketing Act. In the case of all other charges, the charges indicated are prepared as a guide only and are prepared by staff of the Association using standard formulas to factual data respecting the input costs of those activities.

Rules to Apply

1. Charges for drying, prepaid trucking, in-elevation charge and accrued storage are due and payable as of the 31st day of December of each year.

2. Storage charges to be computed on dry weight basis.

Source: Ontario Grain & Feed Dealers Association, effective August 1, 1989

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